

WHAT IS CLAIMED:

1. *S&AS* 1. An apparatus for electrostatically coating a  
2 human with a coating composition, the apparatus  
3 comprising:  
4        an enclosure;  
5        a mount positioned on the enclosure;  
6        an electrostatic nozzle connected to the  
7 mount, the electrostatic nozzle for passing the coating  
8 composition; and  
9        a grounding connection positioned inside the  
10 enclosure, the grounding connection capable of  
11 electrically grounding the human;  
12        wherein the coating composition passed  
13 through the electrostatic nozzle is depositable upon  
14 the human.

1        2. The apparatus of claim 1 wherein the  
2 enclosure comprises:  
3        a first wall wherein the mount is positioned  
4 on the first wall; and  
5        a second wall positioned substantially  
6 opposite the first wall, the second wall including a  
7 portion curved about an axis.

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1           3. The apparatus of claim 2, wherein the portion  
2       of the second wall curved about an axis forms a  
3       parabolic curve.

1           4. The apparatus of claim 2, wherein the portion  
2        of the second wall curved about an axis forms an  
3        elliptical curve.

1           5. The apparatus of claim 2, wherein the portion  
2        of the second wall curved about an axis forms a  
3        circular curve.

1           6. The apparatus of claim 1, wherein the  
2        enclosure has a circular cross section corresponding to  
3        a vertical plane intersecting the enclosure.

1           7. The apparatus of claim 1, wherein the  
2        enclosure comprises:

3           an entry point for permitting the human to  
4        enter the enclosure; and  
5           a door for covering the entry point.

1           8. The apparatus of claim 1, wherein the  
2       grounding connection comprises is a grounding plate  
3       positionable for contact with the human.

1           9. The apparatus of claim 1, further comprising:  
2           a fluid path connected to the electrostatic  
3       nozzle, the fluid path for carrying the coating  
4       composition to the electrostatic nozzle.

1           10. The apparatus of claim 9, further comprising:  
2           a reservoir connected to the fluid path, the  
3       reservoir for storing the coating composition.

1           11. The apparatus of claim 1, wherein the  
2       enclosure comprises a dielectric material.

1           12. The apparatus of claim 1, further comprising:  
2           means to electrically charge the enclosure.

1           13. The apparatus of claim 1, wherein the  
2       electrostatic nozzle is configurable to pass an  
3       atomized and electrically charged coating composition.

1           14. The apparatus of claim 1, further comprising  
2       an exhaust means placed proximate to the enclosure, the  
3       exhaust means for at least removing a portion of the  
4       coating composition passed by the electrostatic nozzle.

1           15. The apparatus of claim 14, wherein the  
2       exhaust means comprises an exhaust fan.

1           16. The apparatus of claim 14, wherein the  
2       exhaust means is substantially formed of a dielectric  
3       material.

1           17. The apparatus of claim 1, wherein the mount  
2       comprises a mount moving means secured to the mount,  
3       wherein the mount is movable by the mount moving means  
4       such that the mount and the electrostatic nozzle are  
5       movable.

1           18. The apparatus of claim 17, wherein the mount  
2       moving means comprises a worm drive.

1           19. The apparatus of claim 17, wherein the mount  
2 moving means is configured to move the mount in a  
3 vertical direction.

1           20. The apparatus of claim 17, wherein the mount  
2 moving means is configured to pivot the mount in a  
3 vertical plane.

1           21. The apparatus of claim 17, wherein the mount  
2 moving means is configured to pivot the mount in a  
3 horizontal plane.

1           22. The apparatus of claim 1, wherein the  
2 electrostatic nozzle is a first electrostatic nozzle  
3 and the mount is a first mount, the apparatus further  
4 comprising:

5           a second mount positioned on the enclosure;  
6 and

7           a second electrostatic nozzle connected to  
8 the second mount, the second electrostatic nozzle for  
9 passing the coating composition.

1           23. The apparatus of claim 22, wherein the second  
2 mount is located separate from the first mount.

1           24. The apparatus of claim 1, further comprising:  
2           a misting chamber positioned adjacent to the  
3 enclosure, the misting chamber for substantially  
4 directing the coating composition into the enclosure.

1           25. The apparatus of claim 1, further comprising:  
2           a compressed air supply connected to the  
3 electrostatic nozzle, the compressed air supply for  
4 providing compressed air to the electrostatic nozzle.

1           26. The apparatus of claim 25, wherein the  
2 compressed air supply comprises an air compressor.

1           27. The apparatus of claim 25, wherein the  
2 compressed air supply comprises an air tank.

1           28. The apparatus of claim 25, further  
2 comprising:

3 an air flow regulator for regulating the  
4 pressure of the compressed air provided to the  
5 electrostatic nozzle.

1           29. The apparatus of claim 1, further comprising:  
2                   an air intake connected to the electrostatic  
3                   nozzle, the air intake for receiving compressed air for  
4                   use by the electrostatic nozzle.

1                   30. The apparatus of claim 1, further comprising:  
2                    a reservoir for storing the coating  
3                    composition;  
4                    a coating composition line connected to the  
5                    reservoir and the electrostatic nozzle, the coating  
6                    composition line for carrying the coating composition  
7                    from the reservoir to the electrostatic nozzle; and  
8                    a compressed air intake connected to the  
9                    reservoir, the compressed air intake for receiving  
10                    compressed air.

1                   31. A method for applying a coating composition  
2                   to a human, the method comprising the steps of:  
3                   providing a coating solution;  
4                   providing an electrostatic nozzle for  
5                   spraying the coating solution;  
6                   (atomizing the coating solution;  
7                   electrically charging the coating solution;  
8                   directing the electrically charged and  
9                   atomized coating solution towards the human;  
10                   depositing at least a portion of the  
11                   electrically charged and atomized coating solution on  
12                   the human.

1                   32. The method of claim 31, wherein the step of  
2                   atomizing occurs before the step of electrically  
3                   charging.

1                   33. The method of claim 31, wherein the step of  
2                   electrically charging occurs before the step of  
3                   atomizing.

1                   34. The method of claim 31, further comprising  
2                   the steps of:

1 39,35. The method of claim 31, further comprising  
2 the steps of:  
3 providing an enclosure for enclosing the  
4 human;  
5 electrically repelling the coating solution  
6 from at least a portion of the enclosure.

1 4036. The method of claim 35, further comprising  
2 the steps of:  
3 extracting at least a portion of the coating  
4 solution from the enclosure, the extracted at least a  
5 portion of the coating solution not being deposited on  
6 the human.

1 3437. The method of claim 33, further comprising  
2 the steps of:  
3 moving the electrostatic nozzle.

1       35. 38. The method of claim 37, wherein the step of  
2       moving the electrostatic nozzle includes the step of  
3       moving the electrostatic nozzle in a vertical  
4       direction.

1       36. 39. The method of claim 37, wherein the step of  
2       moving the electrostatic nozzle includes the step of  
3       oscillating the electrostatic nozzle.

1       37. 40. The method of claim 39, wherein the step of  
2       moving the electrostatic nozzle includes the step of  
3       oscillating the electrostatic nozzle in a vertical  
4       plane.